

Remarks

Claims 1-12 are pending. Claims 1-12 are rejected.

Claims 1, 3, 5, 7, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,856,479 (Jaquette) in view of U.S. Pat. No. 6,768,604 (Anderson). Claims 2, 4, 6, 8, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jaquette and Anderson in further view of U.S. Pat. No. 5,995,306 (Contreras).

Claims 1, 5, and 9 have been amended. No new matter has been added. See, e.g., Application, p. 10, ll. 20-22.

With regard to amended claim 1, Anderson does not teach identifying a data timeout wherein a data timeout occurs if buffered data are not detected within a specified period of time. Examiner asserts that "[t]his limitation is taught by Anderson, wherein in Fig. 2, wherein if an off-track is detected, the medium stops writing (hence a data timeout from writing)." Office Action, February 13, 2007, p. 3. A detected off-track of Anderson, however, is not a data timeout. Anderson explains that

Due to external vibrations, internal inconsistencies in tape, spool, or guide manufacture, and inconsistencies in the wrapping of tape around itself on the spool, the tape sometimes wanders transversely, relative to the writing head, so that centers of the tracks move transversely relative to the writing elements, that is, perpendicular to the length of the tape. This is called "going off-track." These off-track events typically repeat themselves and frequently grow to a magnitude that results, if writing continues, in overwriting of another track or in the data not being found when it is to be read. Most conventional tape systems, therefore, are designed to react quickly when there is an "off-track error," that is, when the head reaches an "off-track limit." This off-track limit is predetermined, by the manufacturer/programmer, to be the limit between the area in which writing may be done properly and the area in which writing is not acceptable because of the possibility/probability of

overwriting or unreadable writing. The off-track limit, in terms of microns transversely off of center-track, is set at different locations by various manufacturers, and is preferably a single off-track limit on each side of center in the range of about 10-20% of the track width. For a track having a 28-micron width, the off-track error limit may be set, for example, at about 3 microns, or another limit within the preferred 10-20% range.

The off-track sensing system of a conventional tape system cooperates with the closed-loop head-positioning servo control system. The head monitors its position relative to the servo bands, and so, in effect, monitors the position of the writing elements relative to the centers of the tracks. When the head reaches the off-track limit, meaning that the individual elements are off-track relative to their respective track centers, an error is signaled. The conventional tape system controller then turns off the writing function while the tape continues to travel at full speed, and waits until the head is back "on track," that is, within the acceptable position limits. Once the sensing system indicates that there is no longer an off-track error, writing is started again.

Col. 1, l. 48 - col. 2, l. 18.

The off-track errors of Anderson have nothing to do with buffered data and whether such buffered data is detected within a specified period of time. Rather, the off-track errors of Anderson concern a tape wandering transversely, relative to a writing head, during a write operation.

With regard to amended claim 1, Jaquette, Anderson, or some combination thereof does not teach performing, in response to the data timeout, a single repositioning of the tape. As explained above, Anderson does not teach identifying a data timeout and therefore Jaquette, Anderson, or some combination thereof cannot perform a single repositioning of the tape in response to it.

With regard to amended claim 1, Examiner asserts that "[i]t would have been obvious . . . to modify Jaquette et al.'s invention with the teaching of Anderson in order to

control off-track error when recording onto tape.” Office Action, February 13, 2007. Anderson, however, expressly teaches away from such a combination. Anderson states that

Optionally, conventional retries may include repositioning the tape, that is, reversing the tape to back-up to a position on the tape where writing stopped, but such methods add complexity and waste time. To prevent endless unsuccessful attempts at writing, the conventional tape controller stops this process if a certain amount of writing has not been done successfully within a certain length of tape. Typically, if a data-set of typically 100-115 mm of data is not written in a total of 4 meters of tape, the controller will stop the process, without any more attempts, and signal a writing failure. The result of such off-track errors and the conventional WWOT process, therefore, reduces tape storage capacity and wastes time, and, occasionally, results in write failures.

Col. 2, ll. 39-52 (emphasis added).

Also, as explained in the December 5, 2006 Amendment, Jaquette states that

Coassigned U.S. patent application Ser. No. 10/058,101 is incorporated for its showing of the initial writing of data to magnetic tape, accumulating that data and subsequently recursively writing the accumulated data to the magnetic tape in a sequence.

Col. 1, ll. 9-12.

Additionally, U.S. Pat. No. 6,856,479 (Ser. No. 10/058,101) states that

The point at which the accumulated synchronized data is recursively written may comprise the termination of the pattern of synchronously written transactions, may comprise a predetermined threshold, such as the limit of capacity of the buffer 30 to accumulate data records, or may comprise the limit of capacity of the work space for the work copies 80-83 and their separation signals 90-92.

Col. 7, ll. 40-46.

Given that Anderson teaches that “conventional retries . . . add complexity and waste time” and that “the conventional WWOT process . . . reduces tape storage capacity and wastes time, and, occasionally, results in write failures,” one of ordinary skill would not have been motivated to recursively write data as described by Jaquette in some combination with the teachings of Anderson.

Examiner rejected claims 5 and 9 on the same basis as claim 1. Although these claims may differ in scope, for the reasons claim 1 is patentable, claims 5 and 9 are patentable.

The dependent claims are patentable because they depend from one of the independent claims.

Applicant’s Attorney submits that the claims are in a condition for allowance. Applicant’s Attorney respectfully requests a notice to that effect. Applicant’s Attorney also invites a telephone conference if Examiner believes it will advance the prosecution of this case.

Please charge any fees or credit any overpayments as a result of the filing of this paper to Deposit Account Number 02-3978.

Respectfully submitted,
RICHARD ALLEN GILL

By /Benjamin C. Stasa/
Benjamin C. Stasa
Reg. No. 55,644
Attorney for Applicant

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BROOKS KUSHMAN P.C.
1000 Town Center, 22nd Floor
Southfield, MI 48075-1238
Phone: 248-358-4400
Fax: 248-358-3351